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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,481	12/31/2003	Mark McDonald	30320/15126	9859

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EXAMINER
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NGUYEN, DUNG T

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/750,481

Applicant(s)

MCDONALD, MARK

Examiner

Dung (Michael) T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 06/01/04, 06/01/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-8, 11-14, 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Jin (2002/0054614).

With respect to claims 1, 4, 6, and 11, Fig. 1 shows a first filter element (etalon) 1 having a first angular sensitivity to the reference axis and for tuning a wavelength of the light in response to changes in an angle of incidence of the light upon the first filter element; and

a second filter element (etalon) 2 having a second angular sensitivity to the reference axis for tuning the wavelength in response to changes in an angle of incidence of the light upon the second filter element, wherein the second angular sensitivity substantially cancels the first angular sensitivity (since the first filter has a positive angular sensitivity and the second filter has a negative angular sensitivity with respect to the reference axis in Fig.1, therefore the second angular sensitivity substantially cancels the first angular sensitivity), wherein the wavelength of the light is not tuned by simultaneous rotation of the first and second filter elements relative to the reference axis (para.0037).

With respect to claim 5, para.0037 discloses the first acute angle is equal to the second acute angle.

With respect to claims 7-8, para.0035, lines 10-12 discloses varying filter substrate temperature (i.e, resistive element).

With respect to claim 12, para.0035, lines 4-5 discloses a support (bulk electro-optical materials).

With respect to claim 13, Fig.1 shows a gain medium (LD); a laser cavity for receiving a light from the gain medium; and a filter apparatus disposed to receive the light at an angle of incidence, the filter apparatus and the laser cavity defining a reference axis, the filter apparatus (first and second filters) having a first angular sensitivity to the reference axis and a second angular sensitivity to the reference axis that substantially cancels the first angular sensitivity (since the first filter has a positive angular sensitivity and the second filter has a negative angular sensitivity with respect to the reference axis in Fig 1, therefore the second angular sensitivity substantially cancels the first angular sensitivity) wherein a wavelength of light produced by the laser cavity is substantially independent of the angle of incidence (para.0037).

With respect to claim 14, Fig.1 shows the filter apparatus is within the laser cavity (from the rear facet of the laser diode to (lens/mirror).

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With respect to claim 16, Fig. 1 shows the filter apparatus comprises a first etalon forming a first angle with the reference axis and a second etalon forming a second angle with the reference axis that is equal and opposite to the first angle (para.0037).

With respect to claim 17, para.0035 discloses the filter apparatus is a temperature tuning apparatus.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jin (2002/0054614) in view of Handa (6008675).

With respect to claim 9, Jin discloses all limitations of the claim except for the detector.

Handa teaches in fig.13 a detector 77.

it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Jin what is taught by Handa to monitor the laser wavelength.

With respect to claim 10, Jin discloses the tunable characteristic is wavelength (para.0030).

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Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jin (2002/0054614) in view of McDonald et al. (2002/0172239). Jin discloses all limitations of the claims except for the filter apparatus is external to the laser cavity.

McDonald teach the filter apparatus is external to the laser cavity in para.0064.

it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Jin what is taught by McDonald to alter the configuration of the filter apparatus disposed external or internal to the laser cavity.

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jin (2002/0054614) in view of Handa (6008675). Jin discloses all limitations of the claims except for the receiver and the transmitter.

Handa teaches in Fig.13 the receiver 72 and the transmitter 71.

it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Jin what is taught by Handa to be used in the optical transmission system (col.12, l.30-31).

### Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (571) 272-1949. The examiner can normally be reached on 8:30 - 17:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Michael I. Nguyen

Michael Dung Nguyen

03/28/06